



# Interorganizational linkages in sport industry clusters - types, development, and motives

Anna Gerke

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## INTERORGANIZATIONAL LINKAGES IN SPORT INDUSTRY CLUSTERS – TYPES, DEVELOPMENT, AND MOTIVES

Gerke Anna - agerke@audencia.com  
AUDENCIA NANTES SCHOOL OF MANAGEMENT

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### ABSTRACT

This article addresses three main questions: what kind of interorganizational linkages exist in sport industry clusters, how do they develop over time, and what are the motivations for creating or joining them. Different types of interorganizational linkages are identified according to the number of partners involved, the formalized nature of linkages, and the type of organizations involved. A multiple case study approach is adopted. The empirical context are two sport industry clusters in sailing (France and New Zealand). Results show that interorganizational relationships tend to be formalized, while interorganizational networks tend to be informal. A circular development process of different types of linkages was detected. Reciprocity is the most prevalent motive for the development of all types of linkages.

Keywords: interorganizational, cluster, cross-sectoral

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## **Abstract**

This article addresses three main questions: what kind of interorganizational linkages exist in sport industry clusters, how do they develop over time, and what are the motivations for creating or joining them. Different types of interorganizational linkages are identified according to the number of partners involved, the formalized nature of linkages, and the type of organizations involved. A multiple case study approach is adopted. The empirical context are two sport industry clusters in sailing (France and New Zealand). Results show that interorganizational relationships tend to be formalized, while interorganizational networks tend to be informal. A circular development process of different types of linkages was detected. Reciprocity is the most prevalent motive for the development of all types of linkages.

## **Introduction**

Sport systems and their actors are complex and often vary in form, structure, and purpose across different countries. The actors of sport systems typically include interest groups that are organized commercially (e.g., sports equipment firm), institutionalized non-profit organizations (e.g., amateur sports club), governing bodies (e.g., the Ministry of Sports), or unorganized stakeholders (e.g., customers of a sports brand) (Petry, Steinbach, & Tokarski, 2004; Shilbury, 2000). Previous research on sport systems has focused on policy issues in elite and professional sports (De Bosscher, De Knop, van Bottenburg, Shibli, & Bingham, 2009; Dickson, Arnold, & Chalip, 2005; Dickson, Phelps, & Waugh, 2009), governance aspects in amateur and volunteer administered sport organizations (Ferkins, Shilbury, & McDonald, 2005; Inglis, 1997), or the transition of the latter in professionally run sport

organizations (Macris & Sam, 2014). This article contributes to interorganizational literature in sport management by examining relational activities and including a range of stakeholder groups to uncover the complexity of interaction (Wolfe et al., 2005).

Thus, this article investigates interorganizational linkages between a variety of stakeholders in sport industry clusters and discusses motives for creating or joining these linkages. While organizational studies in the context of sport (Wolfe et al., 2005) and changes in sport organizations (Ciomaga, 2013) have been identified as a major research theme, sport management research has focused on organizational level research investigating primarily sport governing bodies, clubs, and leagues. Interorganizational relationships (IORs) and collaborative arrangements have been studied in cross sector sport settings with non-profit organizations as focal actors (Babiak, 2007; Babiak & Thibault, 2009). However, the profit sport sector has mainly been studied from a consumer perspective, e.g., branding (Chanavat, Martinent, & Ferrand, 2009), or a macro perspective, e.g., international trade in sports goods (Andreff, 2006) rather than from an interorganizational perspective (Ciomaga, 2013; Warren & Gibson, 2013).

The management of interorganizational linkages between sport organizations from various stakeholder groups including profit, governmental, and non-profit sectors has become increasingly important due to the heterogeneity of sport systems. Extant research in this area has examined the motives for IORs in cross sector relationships in elite sport (e.g., access to resources, legitimacy seeking, reciprocity and strategic positioning among others) as well as the challenge of balancing competition and collaboration (Babiak, 2007; Babiak & Thibault, 2009). Other research focused on IORs and key management practices in professional sport (Cousens, Babiak, & Slack, 2000), across municipal recreation organizations (Frisby, Thibault, & Kikulis, 2004), or in the context of sport organizations and corporate sponsors (Cousens, Babiak, & Bradish, 2006).

This article addresses three main questions: what kind of interorganizational linkages exist in sport industry clusters, how do they develop over time, and what are the motivations for creating or joining them. A main objective was to examine not only dyadic relationships but also interorganizational networks (IONs). The diverse stakeholders in sport industry clusters include private companies providing different sport equipment (core equipment manufacturers, systems suppliers, or accessory suppliers), services, media, or designs, professional and amateur sport entities, governing bodies, and education/research institutes related to a particular sport. The geographical proximity of cluster member organizations, historical and socio-cultural anchorage, as well as strong interpersonal and interorganizational ties through sport related but also economic activities create an interesting empirical field to investigate interorganizational linkages.

The remainder of the article is structured as follows. The theoretical background is outlined developing deductively the theoretical framework for this research. The next section sets out research methods, the empirical context, and the data collection and analysis process. Findings are presented according to the different research questions and topics. The discussion reflects those findings on existent literature and conclusions highlight future research directions resulting from this research.

## **Theoretical Background**

### **Interorganizational Relationships and Networks**

IORs are bilateral linkages between two organizations – cluster members in our case – that are established through regular interactions or transactions with the common aim of serving mutual beneficial purposes in a certain area (Babiak, 2007; Oliver, 1990). IONs are defined as multilateral linkages that consist of at least three organizations – here cluster members – that are connected in ways that facilitate the achievement of a common goal (Gerke, 2014; Provan, Fish, & Sydow, 2007). IONs are created when an IOR is affected by organizations of the

environment in which they are embedded (Warren, 1967). The formalized nature of linkages was distinguished in those that had a legal or formal status, and hence a definite structure or shape, and those that are loose, friendly, unofficial and hence of informal nature (Babiak, 2007; Gerke, 2014). Formal linkages are fixed in a form of contract, rules, or procedures that were agreed upon not just with words, while informal linkages do not result in documented evidence (Vlaar, Van den Bosch, & Volberda, 2006).

Previous research on interorganizational linkages has examined companies' linkages to stakeholders including customers, suppliers, competitors, and public authorities (Gadde, Huemer, & Hakansson, 2003; Håkansson, 2006). IOR and ION studies have investigated strategic alliances, partnerships, coalitions, joint ventures, franchises, research consortia, network organizations, trade associations, agency federations, social service joint programs, corporate-financial interlocks, and agency-sponsor linkages (Oliver, 1990; Ring & Van De Ven, 1994). The geographical concentration of interconnected companies and associated institutions in one field – usually denominated as industrial districts (Marshall, 1920) or clusters (Porter, 2008) – is a rich empirical context to study IORs and IONs (Bell, Tracey, & Heide, 2009; Capo-Vicedo, Exposito-Langa, & Molina-Morales, 2008; Connell & Voola, 2013; Gomes & Hurmelinna-Laukkanen, 2013; Li, Veliyath, & Tan, 2013; Mendez & Mercier, 2006). Some articles focused on interorganizational linkages in sport-based industry clusters (Chetty & Agndal, 2008; Gerke, 2014; Stewart, Skinner, & Edwards, 2008).

Traditionally interorganizational linkages and interactions between companies have been determined by market mechanisms (Håkansson, 2006, Johanson & Vahlne, 2011). The organizational environment and the companies' connections to their environment have become more complex mainly through globalization, new industry structures, and advanced information technologies. Interorganizational linkages and behaviors change from simple bilateral market exchanges towards networks of 'thick' linkages – going beyond simple price

mechanisms. Interorganizational linkages develop to more complex interactions and behavioral patterns that determine the interplay of an organization with its environment. This was found in various different industries including high-tech areas but also production-oriented industries (Gadde et al., 2003; Håkansson, 2006; Johanson & Mattson, 1988; Porter, 2008). Various reasons have been suggested to explain this development including the need for better quality control and higher efficiency across the value chain, better customer relationship management, new ways to innovate, and the internationalization of firms through smaller independent units (Gadde et al., 2003; Håkansson, 2006).

IORs and IONs are a means for product and production process development through new combinations of resources belonging to different organisations (Capo-Vicedo et al., 2008; Gerke, 2014; Håkansson, 2006). A joint development approach towards a product or process allows the consideration of the needs and ideas of all the organizations involved in the value chain. Success factors are stable, trustful, and lasting interorganizational linkages that give access to broader knowledge and that provide a better understanding of the partner organizations' needs and capabilities. Linkages that aim at joint development consist of technical, social, and economic interdependencies. These are reinforced through firm specialization. While economic interdependencies tend to be exogenous – caused by external factors – social elements tend to be endogenous – hence resulting from within established business linkages. Technical interdependencies can be both, inherent in some kind of technology or created through the joint development of new technology (Håkansson, 2006).

Relational strategy stresses the ability to create and maintain IOR in order to sustain in a market (Gadde et al., 2003; Dyer & Singh, 1998). Inherent elements of successful clusters are relational interaction patterns (Molina-Morales et al., 2015). Previous research highlights deliberate interorganizational efforts among co-located firms towards relational governance. The effect of knowledge sharing and knowledge spillovers resulting from a collective pool of



spatially confined knowledge uniquely available to cluster members is one of the main benefits of relational governance (Bell et al., 2009; Capo-Vicedo et al., 2008; Connell & Voola, 2013). Social relations are crucial element towards relational governance because they facilitate interaction and collaboration. Key characteristics of innovative clusters with relational governance are decentralization, high level of cooperation, dense social networks, and high levels of social capital (Bell et al., 2009). The underlying prerequisite of relational governance in a cluster is a macro culture which reflects the values, norms, and objectives shared by the cluster members (Bell et al., 2009; Gomes & Hurmelinna-Laukkanen, 2013).

The role of interorganizational linkages and social capital for cluster governance depends on the type of cluster. A cluster can be dominated and governed by a larger number of mainly locally owned small- and medium-sized enterprises (SME); based around a small number of larger vertically integrated firms and their local suppliers; state-anchored based around a public or non-profit organization; or it can be a satellite cluster that comprises local branches of different multinational enterprises that are headquartered outside of the cluster (Bell et al., 2009). Interorganizational linkages are crucial especially for the first type of cluster consisting mainly of SMEs. Their limits in size and resources makes them depend on cooperation with other firms to solve problems (Connell & Voola, 2013). Sport industry clusters tend to take the form of SME dominated clusters (Chetty & Agndal, 2008; Gerke, 2014; Stewart et al., 2008; Warren & Gibson, 2013).

### **Formal versus Informal Linkages**

The role of formalization of interorganizational linkages in clusters is controversial (Dana & Granata, 2013; Vlaar et al., 2006). Some authors argue that the formalization of interorganizational linkages reduces problems of understanding, especially in early stages of interorganizational linkages (Vlaar et al., 2006). IORs are characterized by levels of ambiguity and uncertainty due to different structures, cultures, functional capabilities,

cognitive frames, terminologies, management styles, and philosophies. This is especially the case when the latter are from separate backgrounds, different industries, and dissimilar belief systems (Vlaar et al., 2006). Dana and Granata (2013) argue that formalization of actions in a cluster strengthens collaborations and creates a collaborative spirit. In contrast, Gomes and Hurmelinna-Laukkanen (2013) argue that informal relations strengthen the unification of the cluster. Informal links are facilitated in clusters through geographical proximity allowing for frequent, repeated, unofficial, informal contacts and exchange that facilitate the creation of strong interorganizational ties (Capo-Vicedo et al., 2008).

The definition of formal linkages is ambiguous with regards to processes versus outcomes. Interorganizational processes can be formalized through planning, projecting, codifying, and enforcing of exchanges. The outcomes of this formalization process are contracts, rules, procedures, and plans (Vlaar et al., 2006). Gadde et al. (2003) argue for informal agreements and trust as alternative governance forms of interorganizational linkages. Formalization of linkages might cause locked-in effects and refrain organizations from joining collective initiatives (Gadde et al., 2003). Furthermore processes and outcomes as different phases of interorganizational linkages can have different formalized natures (e.g., the outcome is a contract but the negotiation process happens during informal exchanges).

The formalization of interorganizational linkages in the sport context is also debatable. Institutional changes in sport systems (e.g., shift of governmental funding for sports) have caused tendencies to the creation and formalization of interorganizational linkages. A lack of knowledge of how to formalize IORs has been attested as issue for non-profit organizations to engage in IORs (Babiak, 2007). However, organizations in sport clusters tend to have similar beliefs and modes of functioning, and hence do not insist on the formalization of interorganizational linkages (Allen, Drane, Byon, & Mohn, 2010, Gerke, 2014). The aforementioned motivations for formalizing interorganizational linkages to reduce problems

of understanding (e.g., different structures, cultures, functional capabilities, cognitive frames, terminologies) may not be valid in the case of sport industry clusters. Hence, we explore the role of formalization of interorganizational linkages in sport industry clusters.

### **Development and Motives for Interorganizational Linkages**

Different motives for the development of IORs and IONs have been identified. Chetty and Agndal (2008) argue that IONs develop on the basis of interpersonal networks. Ring and Van De Ven (1994) identify key success factors to explain IOR development and longevity: congruent sense making and psychological contracts amongst partnering organizations; continuance of assigned individuals in IOR; informal psychological contracts substituting formal contracts with increased trust and reliance; formalization of IOR when temporal duration of IORs are expected to exceed tenure of involved agents; decreasing risk for rupture as duration of IOR increases; and increased risk of rupture if repeated imbalances occur in IORs.

Particular motives for the creation or for joining interorganizational linkages in industrial clusters are identified: performance enhancement (Gadde et al., 2003), risk reduction (Johanson & Mattson, 1988), and creation and diffusion of knowledge (Capo-Vicedo et al., 2008). Babiak (2007) investigated multiple motives for IOR formation amongst collaborating cross-sector organizations and found complex and interrelated drivers for partnership formation. Oliver (1990) proposed an analytical framework of six motivational patterns that determine organizations' decisions to engage in IOR. Those factors are asymmetry, reciprocity, necessity, legitimacy, efficiency, and stability. In this study, we use Oliver's (1990) analytical framing as a foundation to specify motives for IOR/ION development in sport industry clusters.

Specifically, each of these motives reflect individual and collective intentions to engage in IORs. We describe them below and distill each of the motives' key elements.

**Asymmetry** refers to the desire or potential to exercise power or control over another organization and its resources (Babiak, 2007; Oliver, 1990). Asymmetry as motive reflects a power dominated approach to explaining IOR/ION formation. An organization with asymmetry as motive for IOR/ION considers its environment as unjust, unequal, manipulated, and full of information distortion, exploitation, coercion, and conflict (Oliver, 1990). Therefore the only way to interact with the environment is via power, control, and domination. In the context of clusters this means that member organizations can potentially exercise power or control over others.

**Reciprocity** as motive for informal IONs or IORs reflects the pursuit of collaborative advantage (Huxham & Vangen, 2009). It is the opposite contingency for IOR formation regarding asymmetry and postulates that organizations in alliances, partnerships, or networks work more effectively and efficiently than counterparts elsewhere that act isolated (Babiak, 2007; Porter, 2008). An organization that has reciprocity as a motive to join an IOR/ION aims at cooperation, collaboration, and coordination. Theory of collaborative advantage and relational strategy explains how common aims can be achieved more effectively with joints efforts and shared resources rather than alone (Huxham & Vangen, 2009; Dyer & Singh, 1998). Collective behavior theory confirms that members of a collective group are linked in two ways: commensalistically and symbiotically (Astley & Fombrun, 1983). Commensalistic interdependence refers to whether members are directly linked through collaboration or indirectly through competition for scarce resources. Symbiotic interdependence means whether members of a collective group are bilaterally related (IOR) or through multilateral networks (ION) (Astley & Fombrun, 1983).

The motives asymmetry and reciprocity occur simultaneously when two organizations collaborate to exert power and control over a third organization. Organizations' initial motivations for an IOR might change over time and depend on the other organizations'

behavior (Oliver, 1990). Asymmetry and reciprocity refer to the type of interorganizational linkage depending on the number of organizations involved (IOR versus ION) and the type of interaction (collaboration versus competition). Collaboration and competition are typically associated with clusters and behavior amongst cluster members. Therefore these two contingencies are assumed to be most pertinent in the analysis of motivational patterns of cluster members to join IORs and IONs in sport industry clusters. Four remaining contingencies complete Oliver's (1990) framework.

**Necessity.** The necessity contingency refers to motives to join IORs in order to meet necessary legal or regulatory requirements. An example for necessity as a motive is the formation of IORs of a national sport center with its founding partners which depends on those for continued financial support (Babiak, 2007).

**Efficiency.** An organization's efficiency motive to engage in IORs, refers to the organization's attempts to improve its internal input/output ratio through collaborative activity. The efficiency motive might be driven by desires to increase buying power, consolidate, and maximize the use of resources, and achieve economies of scale (Babiak, 2007; Oliver, 1990).

**Stability.** The stability motive refers to organizations' attempts to adapt to environmental changes and uncertainty through engaging in IORs. This leads not only to predictability but also to dependability. Uncertainty of funding and the increased number of organizations providing the same or similar services encourage sport organizations to create long-term IORs to assure funding sources and regular customers/members (Babiak, 2007). In business-to-business IORs (e.g., joint ventures, trade associations) stability motives are related to factors like finding joint solutions for legislative or environmental product norms and standards or sharing entry risk into new markets (Johanson & Mattson, 1988; Oliver, 1990).

**Legitimacy.** The final motive for organizations to engage in IORs is to enhance organizational legitimacy towards its environment (Oliver, 1990). Organizations are exposed to external pressures – economic, social, or political – to which they need to respond to appear legitimate (Oliver, 1990). In the sport context it means that sport organizations engage in IOR/ION with non-traditional partners, e.g., cross-sector partnerships between public, private, and sport organizations. Private firms might seek to enter in IOR/ION with amateur sport organizations to appear more legitimate (Babiak, 2007).

Figure 1 illustrates the research framework summarizing the three research questions. First, what kind of interorganizational linkages exist in sport industry clusters, second how do they develop over time and what are the motivational patterns for joining or creating interorganizational links in sport industry clusters.

----- Insert Figure 1 here -----

Figure 1: Research framework

## **Methods**

Case study research permits the creation of close links between science and reality, and a strong connection between theory, method, and data (Dubois & Araujo, 2007). The multiple case study method permits theory development through theoretical replication and enhances theories' robustness through literal and theoretical replication (Eisenhardt, 1989; Yin, 2009). We chose two case studies that allow these theory-building techniques: one sailing cluster in France (SAILBRIT) and one in New Zealand (SAILAUCK). Theoretical replication is assured through cross-case analysis of clusters across different cultures and nations (France and New Zealand). Literal replication is assured through cross-case analysis of cases in the same sport (sailing).

## Research Context

The research context of this paper are industrial agglomerations in a particular geographical area whose members share an interest in the same or similar sports as profit, non-profit or public organization. Sport industry cluster were chosen because membership is very diverse and interconnectedness is high (Gerke, 2014; Gerke, Desbordes, & Dickson., 2015, Shilbury, 2000). The two sport industry clusters studied for this research focus on sailing equipment and technology for ocean racing. Both clusters comprise a number of interconnected organizations that provide different products or services related to ocean racing, professional and amateur sport entities, sport-related education/research institutes, and governing bodies that exert control or influence over these organizations. A typology of ten different cluster organizations (CLOR) as members of the cluster was used. Each type of CLOR was classified as profit organization or non-profit organization. Profit organizations included core equipment manufacturers, systems suppliers, accessory suppliers, media/communications firms, service/consulting firms, and designers/architects. Non-profit organizations included governing bodies and education/research institutes. Amateur sport and professional sport entities were either profit or non-profit organizations (Gerke, 2014, Gerke et al., 2015). These CLORs provided the context to investigate interorganizational linkages in sport industry clusters (Figure 2).

----- Insert Figure 2 here. -----

Figure 2. Types of organization in sport industry clusters (adapted from Gerke et al., 2015)

Cases were chosen because they were expected to explain investigated phenomena best. A literature review on sport industry clusters showed that industries around outdoor sports tend to develop in clusters (Gerke, 2014, Gerke et al, 2015). Previous studies on sport industry clusters examined industries in outdoor sports including horse-riding (Parker &

Beedell, 2010), skateboarding (Kellett & Russell, 2009), surfing (Stewart et al., 2008; Warren & Gibson, 2013) and sailing (Chetty & Agndal, 2008; Sarvan et al., 2011). Locations with a high density of firms and related organizations in the same sport – sailing – were chosen as case studies.

**SAILBRIT** – the sailing cluster in France is located in southern Brittany in the northwest of France stretching across approximately 185 km with Lorient in the center accommodating most of the CLORs. A mixed-funded – public and private sources – cluster governing body dedicated to the administration, promotion, growth, and innovation of SAILBRIT and its members was identified. SAILBRIT hosts about 120 firms, all of which are affiliated to the cluster governing body (Eurolarge Innovation, 2014). Sailing and the sailing industry is anchored in the people and the history of Brittany as a region with a massive coastline and very changeable weather conditions. Already a couple of decades ago today famous sailors started to build their own boats to cross the Atlantic and laid therewith the foundation for today's shipyards and professional ocean racing stables. An important driver of the development of a sailing and ocean racing industry was the local government's decision to invest in maritime infrastructure and to dedicate industrial space to the maritime industry exclusively. Brittany provides clear features of an industrial cluster around ocean racing comprising diverse interconnected members. Therefore this industry cluster was chosen for this study.

**SAILAUCK** – the sailing cluster in New Zealand is located in Auckland and surrounding covering approximately 77 km and concentrating most CLORs close to the marinas next to the central business district. CLORs were not affiliated to a cluster governing body, however a wider scoped marine trade and export group counted 470 members including other marine businesses than sailing such as fishing and kayaking (NZ Marine, 2014). New Zealand's people and their history are deeply intertwined with the ocean and with navigation



since settlers came to New Zealand by boat and since New Zealand consists of two island with huge coastlines of varying conditions. Sailing is today integrated in schools, in social events, in the daily life of people, and in the economy. Many New Zealanders either send their kids to sailing courses, participate in leisure or competitive sailing, watch major sailing events (e.g., the Volvo Ocean Race), or work in the maritime industry.

### **Data Collection**

Data was collected consecutively for the two cases from March 2012 to April 2013. This time period was interesting for sailing as a sport and industry because the main ocean races took place or were in preparation during this period: the Volvo Ocean Race with stopovers in Auckland (New Zealand) and Lorient (France) in 2012 and the America's Cup in San Francisco with Team Emirates New Zealand as a competitor in 2013. Four types of data sources were used for this research. Interviews and observations served as primary data source. Organizational and archival information served as secondary data sources (Chetty, 2004; Yin, 2009). Table 1 provides an overview of collected data.

----- Insert Table 1 here. -----

Interviews were primarily conducted face-to-face (86%). Two types of interviews were conducted, explorative informal interviews (n=9) and formal semi-structured interviews (n=54). Explorative interviews were conducted with cluster managers, industry experts, or other CLOR employees. These interviews covered personal experiences and knowledge of the cluster. Explorative interviews permitted the identification of important CLORs to include in the study. It facilitated access to interviewees through the snowball method (Miles, Huberman, & Saldaña, 2014).

Formal semi-structured interviews were conducted with general executives and managers from marketing or research and development (R&D) departments. The average

interview duration was 48 minutes. Table 2 shows details concerning the interviewed organizations per case.

----- Insert Table 2 here. -----

We conducted at least two formal semi-structured interviews with representatives of each of the ten CLOR types (Figure 2) with a few exceptions in those categories that seemed especially important (e.g., accessory supplier) or those that played subordinate roles (e.g., amateur clubs). The interviewed individuals were identified as primarily involved in interorganizational linkages. In the French case the selection of interviewees was largely guided by the cluster manager from the local cluster governing body. The cluster manager served as expert to identify key actors in the cluster. In the New Zealand case the interviewee selection was much more based on the snowball method.

The semi-structured interview questions probed the CLORs' involvement in interorganizational linkages (To what extent are you linked to other CLORs in the cluster?); the nature of the interorganizational linkages (How are you interconnected with these CLORs? Can you describe the linkages between your organization and other CLORs?); motivations and intentions for involvement in interorganizational linkages (Why and how have these linkages developed? To what extent are there regular linkages?); and the management and governance of interorganizational linkages (How are these interorganizational linkages governed? Are there any particular organizations that manage and lead the development of the cluster? Which ones are those and how are they doing it?). All interviews were transcribed by the principal investigator and interview transcripts were verified by participants.

The principal investigator attended trade shows, amateur and professional sport events, product trials, professional seminars, and networking events to collect observational data that inform about interorganizational linkages and interactions amongst CLORs. Data

collected during observations included photographs, explorative interviews, advertisements, event programs, and newspaper articles. Results from observations were summarized in reports for further analysis. Observations also served as a starting point to contact interviewees.

Secondary data including organizational information and archival data complemented our data set. Organizational information referred to CLOR-authored presentations, brochures, catalogues, websites, internet blogs, advertising material, and product descriptions. Archival data include third-party authored information such as specialist journals, industry reports, and mainstream media publications.

### **Data Analysis**

Following deductive reasoning a number of themes were identified from the literature review to classify different types of interorganizational linkages according to the number of partners involved, the formalized nature of linkages, and the typically involved stakeholders. We aimed at discovering evolutionary patterns of different interorganizational linkages and why one leads to the other. Motivational patterns to create or join different interorganizational linkages for different stakeholder groups of sport industry clusters were explored with Oliver's (1990) framework for explaining motivational patterns for IOR formation.

All interview transcripts, observations reports, and selected secondary data were analyzed and coded using NVivo, a qualitative data analysis software program that allowed the allocation of textual and visual elements to themes. The first research questions – what kind of interorganizational linkages exist in sport industry clusters – was addressed with a deductive approach. The main coding themes were IOR and ION based on previous definitions and concepts (Babiak, 2007; Oliver, 1990; Provan et al., 2007, Warren, 1967). Sub themes were informal IOR and formal IOR, and informal ION and formal ION (Babiak, 2007; Gerke, 2014; Vlaar et al., 2006). After deductive coding analysis we conducted frequency

counts of the number of times a theme occurs in data and the number and type of sources within each theme (Babiak & Thibault, 2009). This aimed at better organization of data and easier quotation retrieval. The coding process was conducted by the principal investigator. In order to ensure reliability and objectivity of coding results, tables of coded references were provided to co-authors for cross-checks and translation approval.

To address the second research question – how do interorganizational linkages develop in sport industry clusters we conducted inductive analysis across all data to derive patterns that explain the development of the different interorganizational linkages. We compared those with previous research on motivational patterns for IOR/ION creation and discussed differences and similarities.

Finally to address the third research question – why do interorganizational linkages in sport industry cluster develop – we returned to a deductive approach using Oliver's (1990) framework of motivational patterns for joining or creating IORs/IONs. Our data set provides findings from combining inductive and deductive analysis (Babiak, 2007; Dubois & Gadde, 2007).

## **Findings**

In the following sections we provide evidence that consecutively addresses the three research questions: different kinds of interorganizational linkages, the development process of those, and motivational patterns for creating or joining interorganizational linkages.

### **Typical Compositions and Nature of Interorganizational Linkages**

The data analysis shows that overall both IORs and IONs were prevalent amongst CLORs in the investigated clusters. Bilateral relationships tended to be formalized while multilateral networks tended to remain on informal terms. Following the approach of Babiak and Thibault (2009) Table 3 provides an overview of the number of times a theme appears in data and the number and type of sources within each theme for the case study SAILBRIT.

----- Insert Table 3 here. -----

Table 4 provides an overview of the number of times a theme appears in data and the number and type of sources within each theme for the case study SAILAUCK. Evidence for the different types of linkages is discussed in the following paragraphs.

----- Insert Table 4 here. -----

**Formal IORs** between CLORs were manifested in different types of formal agreements. There were commercial IORs between buyer and supplier, between service provider and client, and between subcontractor and client. Formal IORs based on commercial interests were one-off orders, mid-to long-term purchasing contracts, cost estimates, invoices, and delivery orders. An accessory supplier from SAILBRIT explained: *“There are contracts. Sometimes we are held to push formalization quite far, like a partnership, but most of the times it is just a cost estimate, a delivery order, or an invoice.”* Accessory suppliers in SAILAUCK emphasized formal contractual relationships with clients who could be professional teams, naval architects, or private owners. Competing core equipment manufacturers might have even joined forces formally to secure bigger contracts. These findings confirm the traditional view of IORs as being rooted in market mechanisms (Håkansson, 2006). However, in the next paragraph evidence shows that formal IORs were developed for more than pure commercial linkage reasons.

Other formal types of IORs were agreements and partnerships aiming at innovation and R&D. This type of linkage has been investigated in previous research but authors do not explicitly distinguish IORs and IONs (Capo-Vicedo et al., 2008; Gadde et al., 2003). In our sport industry clusters IORs developed often between a cluster company and a university laboratory or research institute but also between a supplier and a professional or amateur sport entity. These IORs were formalized through simple commissioning of a study, through joint

funding of a doctoral student, via specification sheets<sup>1</sup>, and through confidentiality agreements (e.g., for joint product development). A professional sport team from SAILBRIT stated that *“For five years the partnership has been quite structured. That means that every year we make a specification sheet for them with our needs.”* Professional and amateur sport entities kept IORs to core equipment manufacturers, marine accessories, services, and systems suppliers through sponsoring agreements and for product testing purposes, *“We make quite formal criteria to formalize their needs and their feedback.”* (Service/consulting firm, SAILBRIT)

Governing bodies such as the chamber of commerce, public authorities for economic development, industry associations, sport federations, or dedicated cluster governing bodies played a key role in forming those formal IORs. The central role of dedicated sector associations has been highlighted before in the maritime sector (Viederyte, 2013). In sport industry clusters governing bodies had formal IORs with diverse cluster companies through funding programs or membership. Professional and amateur sport entities had formalized IORs with national and regional sport governing bodies through membership. There were few IORs between amateur and professional sport entities.

Even though the IORs in SAILBRIT tended to be formalized an accessory supplier stated: *“I think that the contract is only a paper. It has only little value, even if we arrived at a conflict concerning an aspect in the contract, I don’t think that would play such an important role.”* Also interviewees from SAILAUCK questioned the formalization of IORs in supplier contracts. A core equipment manufacturer explained the role of formal contracts with engine suppliers:

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<sup>1</sup> Specification sheet refers to a detailed description of the design and materials used to make something (Oxford Dictionnaires, 2015).

*Some of the electronics are formalized on a contract but for a matter of words. It's really just a document to get us the buying power and the price because if someone [a customer] comes in and wants not a [name of brand A], they want a [name of brand B] we would sell it to them.” and “We have done contracts and it never really changes the outcome.*

These results highlight the buying power of customers. These findings also contradict previous arguments that formalization of interorganizational linkages is necessary to reduce problems of understanding (Vlaar et al., 2006). We explain this through the fact that interlinked organizations in the sailing industry clusters have similar structures (SME), culture (e.g., sport and nature oriented), management styles (e.g., flat hierarchy, participative management), and backgrounds (e.g., local origin, affection to sailing).

**Informal IORs** arise from formal IORs through regular exchange and interaction that create affinities and interpersonal relationships. A marine service firm in SAILBRIT testified *“We discuss equally outside of purely commercial relationships”*. Informal exchange is possible through geographical proximity, higher frequency of meetings, and lower barriers to meet. CLORs *“Easily discuss with people and [are] able to look for competencies not too far away.”* (Service/consulting firm, SAILBRIT) Informal IORs arise from family ties, friendships, and other interpersonal linkages that have typically existed before market mechanisms related to the growing marine business led to formal IORs. A professional sailing team in SAILBRIT reflected on this aspect, *“With the suppliers [...] we function indeed like a family in the racing stable, and in fact the doors are always open for these people [suppliers], they walk in and out as they like, and they mark our lives.”* These findings are in line with Chetty and Agndal's (2008) proposition that informal IORs are created through interpersonal interactions. Informal IORs might occur in parallel to formal IORs and might be maintained once the latter ceases. Word-of-mouth communication is promoted through informal IORs and provides not only feedback but often new business. An education/research institute from

SAILAUCK said about a systems supplier with whom they collaborate for R&D: *“So they will help us when we ask and we always get [them] to make our sails [for tests]”*.

**Informal ION.** There is strong evidence for informal IONs in both cases. Already previous research investigated IONs in industry clusters (Connell & Voola, 2013; Gomes & Hurmelinna-Laukkanen, 2013; Li et al., 2013). Adding on to Gomes and Hurmelinna-Laukkanen’s (2013) findings about the macro structures of clusters, our results reveal the importance of historical and socio-economic circumstances for sport industry cluster development. Informal IORs support formal IORs as a core equipment manufacturer in SAILAUCK explained:

*It happens so much smoother when you have a good working relationship. This does not necessarily mean regularly meeting up and going out for lunch or dinner, it is frequent communication and the odd catch-up meeting around a table to discuss any issues or sharing of good ideas and then getting back to work.*

A service/consulting firm from SAILBRIT confirmed, *“Our relationships with people in the cluster are prior to creation of the cluster. We have been here in the region for a long time though and we knew all the companies that have been integrated in the cluster.”* These quotations support Chetty and Agndal’s (2008) proposition that interpersonal networks turn into interorganizational networks within industry clusters.

Two typical constellations of informal IONs in sport industry clusters can be distinguished: informal IONs consisting of similar organizations and informal IONs consisting of different but complementary organizations. Informal IONs between similar CLORs are formed through informal support and altruism by providing expertise and information to other firms. This was expressed by a service/consulting firm in SAILBRIT *“I see that more like an exchange between these people and like primordial source of information because otherwise I would never have had access to this information.”* Similar CLORs might share the same market and therefore exchange about difficult clients. Informal



IONs amongst complementary organizations were formed through interactions between different CLORs that were originally linked through market mechanisms. Their interactions exceeded formal agreements through interpersonal trust, mutual respect, citizenship, handshake agreements, long-standing knowledge of each other, and long-lasting IORs (Chetty & Agndal, 2008).

Informal IONs are formed in order to find solutions for shared problems and to share cost for investments. This happens with varying involvement of governing bodies. CLORs in SAILAUCK formed an informal ION to defend their interests in access to waterfront based industrial land towards the city council. A marine service firm in SAILBRIT took initiative to create a shared online communication and information platform for marine services and equipment suppliers and customers. Other firms shared the cost for a boat hull maintenance and cleaning facility. The starting point for these informal cooperative or collaborative projects is often the cluster governing bodies. This body creates formal opportunities for informal interorganizational encounters and exchange: *“Similarly the fact that especially the firms know each other and that there is regularly room where they can meet in an informal way around some animation, interprofessional encounters, etc.”* (Education/research institute in SAILBRIT)

Informal IONs are created in the context of ocean racing teams that are in preparation for important competitions. Professional sport teams need not only physical preparation and training but they also need to build the race boat in close cooperation and collaboration with core equipment manufacturers (shipyards), naval architects, systems suppliers (sail makers and riggers), accessory suppliers (marine equipment), and service/consulting firms. A system supplier from SAILAUCK explained, *“It is very, very important to actually engage the suppliers and make them part of the whole process.”* The involvement of numerous differently specialized CLORs that usually work physically close together in the shipyard or

on the testing grounds is a strong lever for the creation of informal IONs. This aspect is unique to sport industry clusters as the linking element are professional sport teams which are not present in other industrial clusters. Social bonds such as family ties or friendships foster the creation of those informal IONs between firms. A governing body from SAILAUCK confirmed that *“You find that a lot of people know each other at a personal level”*. These informal IONs provided access to external competences, capabilities, and knowledge without entering in commercial relationships as evident in SAILBRIT: *“Just when we need competencies of friends, that’s what it is for, it is about working your network and make the networking functioning.”* (Accessory supplier) and *“I think that it is very interesting for the smaller firms to be able to join us when we work and research because we have a technical development that the others do not have.”* (Systems supplier)

Continuous collaboration aiming at a common goal – constructing a fast and safe ocean racing boat – creates a temporary special atmosphere and environment characterized by a concentration of diverse and in-depth expertise around sailing. This was described by a system supplier in SAILAUCK as *“A big library. [...] It’s just a continuous cycle of building of knowledge. It’s quite a unique sort of environment.”* Informal interorganizational exchange creates IONs amongst the different actors in a boat-building project. This is indispensable to find solutions for problems that sit at the intersection of different boat elements (e.g., sail and mast) or to harmonize the functioning of those different elements. Staff rotation amongst CLORs of all types facilitates informal networking building and knowledge diffusion in sport industry clusters. Spatial proximity of organizations based in the cluster permits informal face-to-face meetings and the development of cooperation and collaboration in early stages without the necessity to formalize linkages (Gadde et al., 2003). A governing body in SAILAUCK explained:

*Fifty percent of the gain is actually the informal connections that they make with other companies. So, it's a huge value, meeting companies that otherwise they wouldn't or in an environment that is conducive for them to talk about their problems or opportunities with competitors or maybe complementary companies.*

A unique characteristic of informal IONs in the studied sailing clusters is the trickle-down effect of knowledge, information, skill, and technology between professional and amateur sport entities. A systems supplier from SAILAUCK explained: *"I never really saw or saw very little that the other boats were using things that they would have got from the America's Cup or the Around-the-world-race. I didn't see other boats doing that, other than us."* The physical closeness between amateur sport, professional sport, and the specialized systems, accessory, and services suppliers permits this knowledge transfer amongst different CLORs at minimal transaction cost. This process was facilitated through cross-functional roles of key persons in marine companies, professional or amateur sport entities, and governing bodies. These interlinkages created informal IONs between profit and non-profit organizations in the sport industry cluster. Those were maintained through interpersonal relationships that had emerged over time, even when these cross-functional assignments had come to an end.

**Formal IONs** in the investigated sailing clusters were membership based cluster governing bodies that pursue shared objectives of their adherents. There was a cluster governing body for ocean racing technology in SAILBRIT which was a formalized ION of around 120 firms and related institutions with an interest in sailing, particularly ocean racing.

**The differences and similarities.** SAILBRIT and SAILAUCK provided similar evidence for the strong prevalence of informal IONs and formal IORs, and weaker evidence for informal IORs. The main difference was the prevalence of formal IONs in SAILBRIT while those seemed to be absent in SAILAUCK. However, there was a marine industry association which had a much larger scope.

The attitudes towards governing bodies were different across the cases. Many of the interviewees in SAILAUCK exposed a consuming attitude towards the marine association. They considered the membership as indispensable in order to be part of the industry network and to receive important information. In contrast, the CLORs in SAILBRIT had a participative attitude towards the cluster governing body and showed intentions and initiatives to develop this formalized ION further.

The important role of the cluster governing body for collaborative innovation projects has been highlighted in SAILBRIT: *“When we work with others that allows us to be open-minded, to understand how the others function, and to work and discover together with the cluster new technologies.”* (Systems supplier). In contrast to SAILBRIT, SAILAUCK seems to function as a self-governed system. This is due to cultural differences and a different perception of the role of the state in the economy of a state. Similar results have been found in other French cluster studies in which the companies are pertinent to demand and accept state intervention to foster institutionalized cluster structures and local industry development (Berthinier-Poncet, 2013; Bocquet, Brion, & Mothe, 2013). Another cultural difference is the employment of a bottom-up approach in the development of a cluster governing body in SAILBRIT compared to a top-down approach in SAILAUCK (Viederyte, 2013).

Further differences were evident in terms of the types of CLORs that are mostly involved in or impacted by interorganizational linkages. In SAILBRIT accessory suppliers and service/consulting firms were mostly involved in formal IORs. A systems supplier from SAILBRIT explained *“We have commercial relationships with cluster companies; one example is [name of company] who manufactures amongst other things marine paint”*. In SAILAUCK it was the core equipment manufacturers and systems suppliers that emphasized formal IORs, *“We’ve got very strong alliances with Yamaha Motors and with our sailing contracts with Volvo Ocean Race, America’s Cup, Farr 40 Race, for those sorts of contracts*

*we use Yamaha outboards for those.” (Shipyard). IORs in both cases were formalized through commercial procedures and contracts (Vlaar et al., 2006).*

### **Development of Interorganizational Linkages**

Chetty and Agndal (2008) refer to IONs as the accumulation of IORs that emerge and expand between organizations through interaction. As soon as one organization is involved in several IORs, one can argue that a network emerges. However, what is intriguing in our results is that CLORs perceived IORs as rather formalized while IONs were rather informal. Therefore the accumulation of formal IORs seems to result in the creation of informal IONs. However, there is also evidence that IORs became informal after a while, even though they were initially purely formal commercial exchanges. A governing body from SAILAUCK explained, *“I would probably say a lot of the business in the marine industry doesn’t have contracts anyway. So things are quite informal for better or worse in a lot of cases.”*

The CLORs’ perception of the formalized nature of interorganizational linkages and the reality was not always congruent, i.e., the purchasing act of parts might be considered as informal because no contract is signed. With regards to the definition of formal links as those that have a legal or formal status and hence a definite structure or shape (Vlaar et al., 2006), it is indeed debatable whether a purchasing act that is based on a handshake agreement and no unit numbers or prices are fixed in writing should be considered as formal or informal linkage. It is an interaction that is rooted in market mechanisms but other factors such as the interpersonal relationships between the persons representing each firm might influence the nature of the IOR.

Informal IORs between complementary firms develop from IORs rooted in market mechanism. CLORs that have had business IORs or other formal IORs over a longer period of time started to get to know each other very well. This resulted in the creation of informal IORs as the director of this core equipment manufacturer in SAILAUCK explained:

*I was a Chairman in the Olympic Committee, that was a very formal role but there are also a lot of informal roles where people in those organizations will ring us up for advice. I am not anymore in any of those roles but we still communicate a lot with them, but that has nothing to do with [company name].*

This quotation shows how formal IORs can develop into informal IORs that then add up to an informal ION.

In the case of SAILBRIT an informal ION developed into a formal ION, the cluster governing body. This institution provided a new platform for the development of formal IORs. The cluster governing body was a platform and intermediary to link potential buyers and suppliers in the cluster. At the same time CLORs could made informal contacts during events and via the network of the cluster governing body. From this point the cycle restarts. Figure 3 illustrates this development cycle of different interorganizational linkages (i=informal, f=formal). This is only an indicative illustration and is not exclusive towards other forms of linkage development.

----- Insert Figure 3 here. -----

Figure 3. Development process of interorganizational linkages

### **Motivational Patterns for Interorganizational Linkages**

We identify reasons and motives for CLORs to join or create IORs or IONs and discuss the identified reasons and motives with regards to six contingencies for IOR development. This discussion allows us to transfer motivational patterns suggested by Oliver (1990) in the context of sport industry clusters. The results are illustrated in Table 5 and explained in the paragraphs below.

----- Insert Table 5 here. -----

The institutionalization of a cluster through a membership-based governing body reflects asymmetric motives. Cluster governing bodies were formal IONs that collected resources from members (e.g., membership fees) and used them for collective projects (e.g., for R&D projects). These collective projects might not have been in the interest or the priority of all CLORs but just a few. An alternative to collective projects was collaborative projects. These define objectives and collect funds specifically from those CLORs that were interested in these objectives. However, collaborative projects within a cluster governing body created exclusivity and disparity amongst CLORs as results were only available for those CLORs that financed the project.

Asymmetric reasons for formal IORs in clusters might be related to organization size, control over the rules governing the interorganizational exchange, the possibilities to continue without the partner, the effectiveness of coercive strategies, and the concentration of inputs (Oliver, 1990). Heterogeneity of CLORs (e.g., size) appeared to be an asymmetric motive for IORs in the sport industry clusters. The cluster governing body in SAILBRIT provided access to technology and facilities of other CLORs. A systems supplier from SAILBRIT explained:

*I think that it is very interesting for the small companies to be able to join us in our work because we have capacities in terms of calculations, technical development, and technology that others do not have. So in associating themselves with us they have the possibility to develop themselves as well.*

However, the CLORs that provided resources to the cluster governing body risked to lose control of the shared resources. Small CLORs tended to provide intangible resources (e.g., ideas), while bigger firms might have shares tangible resources (e.g., research facilities). The bigger firms might gained power over the smaller ones but it was unlikely that the smaller one would gain power over the bigger company.

Our study demonstrated that reciprocal motives for IOR/ION formation aimed at collaborative advantage and included for example collaborations for R&D, for product

testing, through sponsoring, informal information and knowledge transfer, and collective promotion at trade shows or sport events. A core equipment manufacturer in SAILAUCK referred to an IOR with an external naval architect who developed designs for them, *“He would never go and sell it to anyone else because that is just understood but it's never discussed. We have never had contracts or anything.”*

Necessity was reflected in the ION that was formed with the creation of the cluster governing body in SAILBRIT. There were three different public authorities that jointly funded the cluster governing body for the local ocean racing industry. The cluster governing body had necessarily close formal IORs to these governing bodies and depended on them for future funding. However, CLORs that joined the cluster governing body were another source of funding. Public authorities would offer certain funding possibilities only to consortia or partnerships of CLORs and hence encourage formation of linkages. Necessity was evident as motive for commercial IOR because certain CLORs depend on clients or suppliers to continue their activity. For example, core equipment manufacturers in SAILBRIT entered formal IORs to respond to a larger order of boat hulls that otherwise neither of them could have fulfilled alone.

Efficiency was evident in our findings particularly related to boat-building projects. Due to the close cooperation of different firms on the boat construction site, knowledge and information exchanges were more efficient; better solutions at the intersections of different parts (e.g., sail and mast) were found more efficiently; and collaboration synergies were optimized through direct face-to-face meetings and communication. Firms that were involved in boat-building projects, work closely together over a longer period of time which increased efficiency through better mutual understanding of each other's challenges and needs. A core equipment manufacturer from SAILAUCK reflected on this cooperative mode of functioning:



*“I think part of the reason why ETNZ (Emirates Team New Zealand) has been a successful team over the years to some degrees is because we are one of the first to realize that you should not just treat all the components that go onto the boat as separate entities. They all affect each other.”*

CLORs looked for legitimacy when they joined the cluster governing body and participate in collective actions (e.g., better reputation through collective participation in trade shows). External pressures for firms pushing them to join the cluster governing body were primarily economic but might also have been social. Firms in SAILBRIT joined the cluster governing body in order to be associated more obviously with ocean racing as sport and industry. This provided them with an attractive image and could serve as show case to attract new clients, even from other sectors than the ocean racing sector. The motive of legitimacy was less evident in SAILAUCK as there was no dedicated cluster governing body for the ocean racing industry.

Informal IORs were the most prominent interorganizational linkages that were chosen with the motive of stability. Informal IORs tended to be based on trust and reliance between CLORs that had established a long-term relationship. Informal IORs served as source of expertise, market information, new knowledge, and anticipated changes. Informal IORs assured access to this information which might be crucial to survival to the mostly small- and medium-sized CLORs in sport industry clusters.

## **Discussion**

The findings from this study reflect the complexity and varied nature of interorganizational linkages in sport industry clusters. The interorganizational field of sport industry clusters consist of IORs that are embedded in a highly complex and heterogeneous organizational environment. As soon as CLORs that are involved in an IOR interact with the environment, new IORs are formed which results in an ION (Warren, 1967). The empirical context in our case studies is ocean racing and all organizations that have an interest in this sport as profit or

non-profit organizations. The evidence underlining the main findings are discussed for each research question in the following paragraphs.

### **Mainly Involved Organizations in Interorganizational Linkages**

The majority of CLORs are comprised of private companies that have commercial IORs with customers or suppliers. This explains the predominance of formalized IORs in both clusters (Gadde et al., 2003). The clusters comprise not only industry partners but also government agencies and universities/research institutes (Etzkowitz, 2014, Shah & Pahnke, 2014). These CLORs form both formal and informal IONs. Cluster governing bodies represent formal IONs while informal ION developed around boat-building projects involving various CLORs. The crucial role of public authorities as facilitator of formal IONs and the role of education/research institutes as stimulator of innovation through formal IORs is confirmed in the context of sport industry clusters.

In sport industry clusters private firms depend not only on other firms but also on professional and amateur sport entities. Systems and accessory suppliers, service providers, media, and designers tend to have either informal or both informal and formal IORs to primarily professional sport teams and training centers but also occasionally to amateur sport clubs. These IORs are built through regular social interaction and exchanges which create affinities and interpersonal relationships. Establishing a congruent understanding of each other's identity in relation to others – congruent sense making – and psychological contracts amongst the involved parties contributes to the establishment of cooperative IORs (Ring and Van De Ven, 1994). However, these are not necessarily formalized as personal relationships and informal psychological contracts substitute or at least complement formal IORs. Conditional factors are the development and augmentation of trust and reliance over time.

### **Typical Level of Formalization of Interorganizational Linkages**

IORs tend to be formalized while IONs tend to remain informal in nature. This is due to the limited duration of ocean racing competitions and the competing teams. An ocean racing event usually takes several years of preparation. Teams prepare sailors and the boat construction over two to three years. There is a number of different commercial and contractual IORs between the firms contributing to the project. In addition to the formal boat-building project, there is a parallel underlying layer of an informal ION through family bonds, friendships, informal exchanges, and joint practices of sailing. These formal links and the informal ION mutually influence and reinforce each other. The findings show that formal IORs can be the starting point to develop informal IONs through frequent direct contact and exchanges. On the other hand informal ION can lead to repeat formal IOR for future boat-building projects (Capo-Vicedo et al., 2008; Gomes & Hurmelinna-Laukkanen, 2013).

Interpersonal networks transform into IONs in sport industry clusters (Chetty & Agndal, 2008). Informal IONs based on personal relationships turn into formal IONs as evident in SAILBRIT through the creation of a formal cluster governing body. This example emphasizes the role of public authorities as intermediary, facilitator, and lever of potential for IONs. CLORs tend to be rather homogenous in terms of backgrounds, beliefs, structure, culture, cognitive frames, management styles, and philosophies due to the co-location in the same geographical area, historical and socio-cultural anchorage, and the interest in sailing. Therefore, IONs in sport industry clusters do not require formalization to reduce problems of understanding. However formalization of IONs seems to be fruitful in order to create awareness about potential for synergies, efficiencies, and innovation through interorganizational collaboration in the cluster (Vlaar et al., 2006).

Sport industry clusters are characterized by an evolutionary process of formal and informal IORs and IONs. While IORs tend to be formal in the beginning, there is a recurrent

pattern of formal IORs that turn into informal IORs once the formal agreement ceases. However, informal IORs develop also from social ties like family bonds, friendships, and from practicing sports. The accumulation of informal IORs in a geographically close area allowed cluster members to meet informally and spontaneously permitted the creation of an informal ION amongst CLORs. Informal ION can be facilitator and source of economic activity and potential for growth. In recognition of this, different public authorities provided funds to create a cluster governing body – a formal ION in one of our cases. The cluster governing body consisted of private, public, and non-profit members that had a shared interest in the advancement of economic activities around ocean racing.

### **Main Motivational Patterns for Creating or Joining Interorganizational Linkages**

The most evident motive for joining or creating IORs or IONs – formal and informal – was reciprocity out of the six determinants for IOR development suggested by Oliver (1990). Reciprocity refers to the pursuit of coordination, cooperation, and collaboration in IORs (Oliver, 1990). Cooperation is also a behavior that is often attributed to clusters and CLORs according to cluster theory (Porter, 2008). Reciprocity as motive was evident in IORs and IONs formed for research collaborations, in joint bids for funding or tenders, in reciprocal informal exchange of knowledge and information, in joint presentations at trade shows or web sites, and in joint approaches to problem solutions during boat building projects. The types and level of reciprocity were quite diverse in our data and hence, further research in exploring reciprocal motives for IORs and IONs is suggested in the context of sport industry clusters.

Traditional cluster theory argues that CLORs are interlinked through commonalities and complementarities which lead to simultaneous competition and cooperation (Porter, 2008). The motive asymmetry for IOR development reflects competitive behavior because organizations consider their environment as hostile and hence try to dominate their partners via an IOR or ION. Asymmetry was only evident as a motive for formal ION development as

cluster members sought to be able to exercise power over other CLORs in collective projects or through taking propriety of shared resources.

These results are interesting in the light of Babiak's (2007) results concerning motives for organizations to join cross-sectoral IORs. The motives of corporate partners to engage in IORs with non-profit national sport organizations were explored. Similar results were obtained in terms of reciprocity. However, Babiak (2007) emphasized that corporate managers' personal interests, values, or beliefs lead to motives for developing IOR with non-profit sport organizations. While Babiak (2007) concentrated on IORs this study also investigated IONs. An ION consists of indirect IORs which can lead to anonymity and a loss of control over any resources that are shared with the ION. Gadde et al. (2003, p. 359) summarized this effect of IORs as follows *"The relationship combines the physical and organizational resources of a company with those of its counterparts. Therefore, a significant part of a company's total resource base is located beyond its ownership boundary and is controlled bilaterally with other firms."* Our findings confirm that this effect of loss of control is prominent in IONs.

In both cases the necessity motive for IONs was the dependence of and organization on its funding partners (Babiak, 2007). Legitimacy as motive for cluster members to join IORs or IONs was more comparable to motives of trade associations, e.g., enhance CLORs' and cluster's image collectively; or voluntary agency federations, e. g., increase cluster visibility towards public authorities (Oliver, 1990). The affiliation of CLORs to a cluster governing was attractive because it helps to improve CLORs' image and their marketing communications.

The stability motive is associated with informal IONs. Social integration in the industry and the psychological support from other firms in the same industry sector with similar belief, objectives, and problems provide members with perceived and some real security. Finally efficiency motives were evident in informal IONs of boat-building projects.

The close and direct cooperation on a shared physical site – the boat yard – provides easier and more efficient means of meetings and exchange. This results in more efficient problem-solving and the harmonization of interrelated processes.

## **Conclusions**

Two people shake hands, three sign a paper. While IOR tend to be formalized, ION tend to remain on informal terms. This article provides a nuanced perspective on the variety of interorganizational linkages in the cross-sectoral context of sport industry clusters. So far literature has focused on either IORs (Babiak, 2007; Babiak & Thibault, 2009; Cousens et al., 2006; Dana & Granata, 2013; Mendez & Mercier, 2006; Oliver, 1990; Ring & Van De Ven, 1994; Vlaar et al., 2006), on ION (Camagni, 1993; Capo-Vicedo et al., 2008; Chetty & Agndal, 2008; Provan et al., 2007), or on both IOR and ION but often using the terms interchangeably (Gadde et al., 2003; Håkansson, 2006). This article suggest a clearer distinction and consequently a clearer terminology of interorganizational linkages and its nuanced differences.

Relationships are like networks, a never ending story. Formal IOR tend to develop into informal IOR. Over time an informal ION emerges. The synergy potential of the informal ION incites the institutionalization of the ION into a formal governing body to better take advantage of the ION. The development process of interorganizational linkages and consequently determinants that favor the development of interorganizational linkages have been studied from various perspectives. IOR development can be based on interpersonal relationships (Chetty & Agndal, 2008); six motivational patterns including reciprocity and asymmetry as motives for IOR development (Oliver, 1990); and key factors for IOR development and longevity including congruent sensemaking (Ring & Van De Ven, 1994). This article complements previous research on cross-sectoral IORs (Babiak, 2007; Babiak & Thibault, 2009) by focusing on a cross-sectoral empirical context dominated by private small-

and medium-sized organizations – sport industry clusters. We propose a circular framework that highlights the perpetuity and renaissance of IOR and ION development.

Tit for tat. Results show that reciprocity is the main motive for joining or developing interorganizational linkages. In studying motives of sport equipment firms and related organizations (e.g., public authorities, universities) this study provides insight of motives for organizations joining an IOR or IOL in a highly competitive environment.

The findings of this research provide practical insight for managers of interorganizational linkages in cross-sectoral contexts (e.g., sport industry clusters). Traditional corporate strategy approaches argue for differentiation or cost leadership strategies (Ansoff, 1987). Insights about IORs and IONs reveal alternatives to purely competitive approaches to strategic management of profit and non-profit organizations. This article advances knowledge and evidence for practitioners about possibilities and motives to enter interorganizational linkages. Coordination, cooperation, or even collaboration are alternative strategies in order to engage with and manage an organization's interactions with the external environment. This article provides recommendations for managers operating in sport industry clusters and shows how interaction and development of interorganizational linkages with non-profit organizations, tertiary institutions, and sport entities can benefit companies and vice versa.

Engagement in informal IORs can open up research collaborations, sponsoring opportunities, and provide access to larger contracts or external funding through collective bids. Involvement in informal IORs can provide stability through permanent access to crucial information and knowledge that organizations could not access alone or only with difficulties via formal ways. Formal IONs provide access to other CLORs' resources which allows the new combination of a variety of resources leading to innovative solutions (Schumpeter,

1942). Formal IONs permit CLORs to promote each other collectively and reduce costs through joint investment, economies of scale, or augmented purchasing power.

The findings from this research are limited in their generalization to other contexts because it was conducted in only one type of industry. However, Yin (2009) argues that literal replication of findings across similar case settings strengthens theory. While there are some differences across the two cases – due to cultural differences – most of the results were congruent across the two cases. The findings show that sailing industries are similar across national and cultural borders because the sport determines to some extent beliefs, values, management styles, modes of functioning, and philosophies of organizations and their managers and employees.

This study might have suffered from the multitude of definitions that are available for the key terms of this research (e.g., IOR). However, it is the purpose of this study to clarify and provide more nuance and context to the terminology of IOR and ION in interorganizational research. Furthermore motivational patterns in sport industry clusters could have been exploited further by studying more profoundly the motives of certain types of CLORs (e.g., core equipment manufacturer) and compare those (Babiak, 2007).

Further research is recommended in three areas. First this research reveals the limitations and interchangeability of currently used definitions in interorganizational research (IOR/ION). Therefore we encourage future research to advance the conceptualization of these key terms in interorganizational research. Second, we encourage the investigation of the development pattern of interorganizational linkages in different cultural and industrial contexts. Since our findings are only indicative and limited to one sector it would be interesting to see the evolutionary processes of IORs and IONs in various contexts and compare them. Finally there is still a lot of unanswered questions in terms of motivational patterns for joining and creating IORs and IONs. A more nuanced study focusing on the



underlying factors of the different motivational patterns would allow a deeper understanding of the development process of interorganizational linkages and indicate ways to facilitate this process.

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## Figures

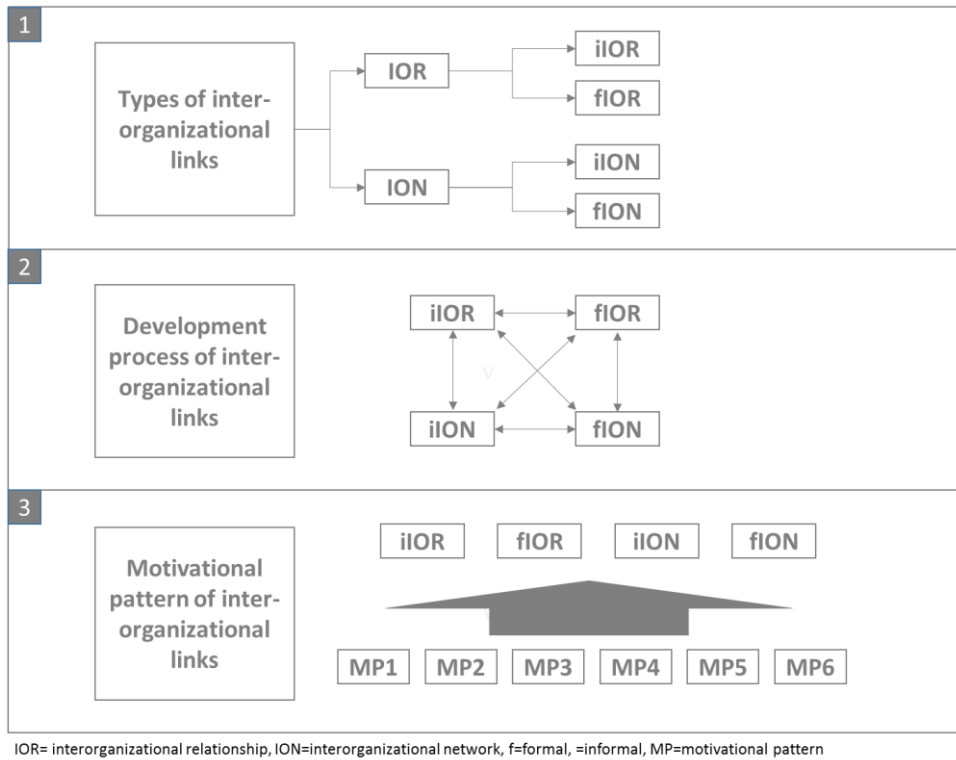


Figure 1. Research framework

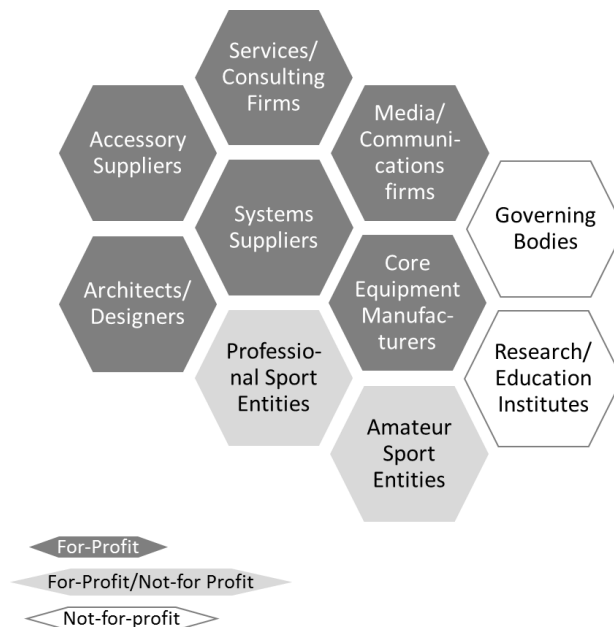


Figure 2. Types of organization in sport industry clusters (adapted from Gerke et al., 2015)

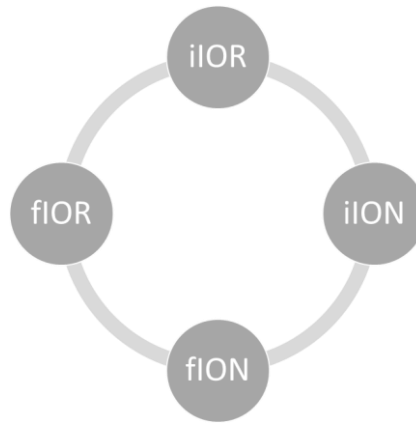


Figure 3. Development process of interorganizational linkages

## Tables

*Table 1: Overview of collected data*

	SAILBRIT	SAILAUCK	Total
Explorative informal interviews	7	2	9
Formal semi-structured Interviews	27	27	54
Direct observations	8	4	12
Organisational information*	15	12	27
Archival data*	8	1	9

\* number of retained documents after scanning

*Table 2: Number of interviewes per organization type*

	SAILBRIT	SAILAUCK	Total
Core equipment manufacturers	2	4	6
Architects/designers	2	2	4
Systems suppliers	4	3	7
Accessory suppliers	7	3	10
Services/cosulting firms	5	4	9
Media/commnication firms	3	1	4
Professional sport entities	2	3	5
Amateur sport entities	1	2	3
Research/education institutes	2	1	3
Governing bodies	6	3	9
Total	34	26	60

Table 3: Findings from case study SAILBRIT

	Number of times a theme appears in data	Number sources within each theme	Type of source			
			Interviews	Observ.	Org. Info.	Archiv. Data
Formal relationships	115	29	27	0	0	2
Informal relationships	59	24	22	0	1	1
Formal networks	59	22	19	1	1	1
Informal networks	134	38	28	4	4	2

Table 4: Findings from case study SAILAUCK

	Number of times a theme appears in data	Number sources within each theme	Type of source			
			Interviews	Observ.	Org. Info.	Archiv. Data
Formal relationships	105	28	24	0	3	1
Informal relationships	68	26	24	0	1	1
Formal networks	26	18	15	3	0	0
Informal networks	133	34	26	1	6	1

Table 5: Motives/reasons for Interorganisational Linkages

Type of Linkage	Motives/Reasons Emerging from Data	Motives according to Oliver (1990)
formal IOR	commercial agreements and transactions (purchase and subcontracting), research collaborations, sponsoring contracts, confidentiality agreements, joint bids for funding or a tender	reciprocity, necessity
informal IOR	historically developed social ties, family bonds, friendships, informal knowledge and information transfer/exchange, possibility to offer joint product packages, access to expertise	reciprocity, stability
formal ION	cluster governing body/association, research consortium, joint bids for tenders/funding, joint stands and presentation at trade shows, reduce cost for investment	asymmetry, reciprocity, necessity, legitimacy
informal ION	boat-building projects, networking meetings, shared clients/markets, shared problems	reciprocity, efficiency

IOR=interorganizational relationship, ION=interorganizational network